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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,884	02/11/2004	Jack J. Reilly	IR3709 NP	3393

31684 7590 04/19/2007

ARKEMA INC.
PATENT DEPARTMENT - 26TH FLOOR
2000 MARKET STREET
PHILADELPHIA, PA 19103-3222

EXAMINER	
FERGUSON, LAWRENCE D	
ART UNIT	**PAPER NUMBER**
1774	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/776,884	REILLY ET AL.	
	Examiner	Art Unit	
	Lawrence D. Ferguson	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30 and 32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21, 23-24, 26-30* is/are rejected.

7)☒ Claim(s) *22,25 and 32* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment mailed January 17, 2007. Claim 32 was added rendering claims 1-30 and 32 pending in this case.

Claim Rejections – 35 USC § 102(b)

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5-9, 12-14, 20-21 and 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Palmer et al. (U.S. 5,915,549).

Palmer discloses an article comprising two or more layers, where two plastic transparent (light transmitting) layers have a different color from one another, where the color pattern changes when viewed from one of the edges (column 9, lines 50-55 and column 10, lines 15-21). Figure 1 shows an interlayer material and Palmer further discloses the article comprises sheet material (column 9, lines 51-52). One of the layers (substrate) of the article is opaque (column 5, lines 13-17), which meets the limitation of claim 8. Figure 1 shows where the sheet material has a three dimensional form, which is used as a consumer product. In claim 20, the phrase, "produced by coextrusion or fusion bonding of said layers" introduces a process limitation to the product claim. The

patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966. Further, process limitations are given no patentable weight in product claims.

Claim Rejections – 35 USC § 103(a)

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Palmer et al. (U.S. 5,915,549).

Palmer is relied upon for claim 1. Palmer does not explicitly disclose a mixture of colors viewed, when viewing along the edge of one of the light transmitting layers. It would have been expected for the observed color of the plastic layer(s), when viewed along an edge, to appear as a mix of at least two colors, as the principle color will be seen as well as the changed color, which will result in a mix of at least two colors.

Claim Rejections – 35 USC § 103(a)

6. Claims 10-11, 15-19, 23-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palmer et al. (U.S. 5,915,549) in view of Church (U.S. 5,622,259).

Palmer is relied upon for claim 1. Palmer does not disclose the plastic layers are made of acrylic polymer, where the acrylic polymer is polymethyl methacrylate. Church teaches typical transparent plastic material made of acrylic polymers, which are particularly polymethyl methacrylate (column 1, lines 30-34). It would have been obvious to one of ordinary skill in the art to for the plastic layers of Palmer to comprise acrylic polymer, such as polymethyl methacrylate, because Church teaches these are conventional materials which typical plastic materials are made of. In claim 23, the phrase, "layers are coextruded" introduces a process limitation to the product claim. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966. Further, process limitations are given no patentable weight in product claims.

Although neither reference explicitly teaches the indices of refractions of the layers. because the plastic layers are made of the same materials, having the same function as claimed, it would have been obvious to one of ordinary skill in the art for the layers to have indices of refraction that are substantially the same (within about 0.5 of each other), being greater than air, and at least about 1.05. Additionally, the depth from

the edge of the layer(s) is an optimizable feature when can be easily determined by one of ordinary skill in the art. With regard to the limitation of the depth, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. depth) fails to render claims patentable in the absence of unexpected results. The depth of the article is optimizable as it directly affects the mechanical strength of the article. It would have been obvious to one of ordinary skill in the art to make the article with the limitations of the varying depth since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 USPQ 215 (CCPA 1980).

7. Claims 22, 25 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record does not teach or suggest the recited article further including wherein said interlayer material is a liquid having an index of refraction between about 1.05 and 2.0. The prior art of record also does not teach or suggest the recited article further including wherein the interlayer is liquid or further having a fluorescent, phosphorescent, electrochromic, photochromic, pearlescent or effervescent visual effect.

The prior art does not teach motivation or suggestion for modification to make the invention as instantly claimed.

Response to Arguments

8. Applicant's arguments of rejection made under 35 U.S.C. 102(b) as being anticipated by Oshima et al. (U.S. 6,103,345) are moot based on grounds of new rejection.

Applicant's arguments of rejection made under 35 U.S.C. 103(a) as being unpatentable over Oshima et al. (U.S. 6,103,345) in view of Lecoeur et al (U.S. 3,940,523) are moot based on grounds of new rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

L. Ferguson
Patent Examiner
AU 1774

RENA DYE
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